



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/576,484	05/23/2000	David Caidar	1961-PAT	3050

30084 7590 03/26/2003

DONN K. HARMS
PATENT & TRADEMARK LAW CENTER
SUITE 100
12702 VIA CORTINA
DEL MAR, CA 92014

EXAMINER

FAHMY, SHERIF R

ART UNIT PAPER NUMBER

2633

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/576,484

Applicant(s)

CAIDAR ET AL.

Examiner

Sherif R. Fahmy

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Objections

1. Claims 16 and 17 are objected to because of the following informalities: Claim 17 begins on line 4 of claim 16. Proper formatting is requested: claim 17 should begin on a new line. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6, 7, 9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda in view of U.S. Patent no. 6,418,558 to Roberts et al. ("Roberts").

Regarding claim 1, Fukuda teaches a fiber optic video transmitter system (col. 2- lines 39-60), comprising: input means for receiving a digital video signal (1 in fig. 4), a cable equalizer (26c), and a reclocker (26a and 21), outputting a synchronized signal, and means to transmit the synchronized signal ("reception data" in fig. 4). Fukuda does not specifically teach the input means receiving the video signal specifically from a coaxial cable, and does not specifically teach transmitting the synchronized signal with a laser transmitter, and means for directing the resulting data signal (from the laser) into a fiber optic cable.

Fukuda does suggest that optical fibers and coaxial cables are typically used to transmit video data (col. 1- lines 13-22).

Roberts specifically teaches these features (c.f. fig. 4- 22, 25, 501, 24) in a system for transmitting video data.

At the time the present invention was made, it would have been obvious to one having ordinary skill in the art to configure the input means of the transmitter system of Fukuda receive the video signal from a coaxial cable and likewise to configure the output means of the transmitter of Fukuda to transmit the output signal using a laser and to direct it into an optical fiber. One having ordinary skill in the art would have been motivated to do this because it is old and well known in the art that video data from conventional sources (such as television broadcasting stations, channels, or networks) usually originates from an RF source (for which coaxial cables are best suited for transmission thereof), and it is also old and well known in the art that optical fibers are best suited for long distance transmission and very high bandwidth (which enables them to carry a large number of channels and to service a large number of subscribers).

4. Regarding claim 7, Fukuda teaches a fiber optic receiver system (fig. 4), which comprises input means, for receiving a digital video signal (1), a reclocker (26a and 21) outputting a synchronized signal, and output means ("reception data"). Fukuda does not specifically teach receiving the input video signal from an optical fiber, and does not specifically teach coaxial cable driver means directing the synchronized signal into a coaxial cable.

Roberts teaches these features (42, 400, 406, and 30 in fig. 5) in a video data receiver.

At the time the present invention was made, it would have been obvious to one having ordinary skill in the art to include these features of the receiver of Roberts in the receiver of Fukuda. One having ordinary skill in the art would have been motivated to do so, because it is

Art Unit: 2633

well known in the art, that optical fibers are best suited for delivering high quality video data over a long distance to a subscriber, and for carrying a large number of channels (high bandwidth), enabling the system to service a large number of subscribers. It is also well known in the art that coaxial cables are a conventional means available to the subscriber to receive video data (i.e. it is well known that they are typically installed in the home, as also taught by Roberts-see 30, 44, 45 and 47 in fig. 1).

5. Regarding claim 13, the combined teaching of Fukuda and Robert as constructed above does not specifically include integrating the transmitter and receiver in a transmitter and receiver system as taught in claim 13. However, Roberts teaches a transmitter and receiver system wherein the transmitter receives a video signal from a coaxial cable, transmits it over an optical fiber, and wherein the receiver receives the signal from over the fiber and transmits it over a coaxial cable (see figs. 1-5). At the time the present invention was made, it would have been obvious to one having ordinary skill in the art to connect the transmitter of the combined teaching with the receiver of the combined teaching via an optical fiber, in the manner taught in Roberts, in order to transmit high bandwidth signals over long distances using an optical fiber.

6. Regarding claims 6, 9 and 14, Roberts teaches a power supply, 60 (for instance, fig. 3), that delivers an appropriate voltage to the system. Roberts does not specifically teach that the power regulator receives 12 volts power and directs regulated 5 volt direct current (DC) power to other components and further including visible indicia for indicating that power is on. Official notice is taken that power supplies and power regulators are well known in the art. It is also old and conventional that standard digital circuits operate with 5 volt DC power. Further, it is well known that in order to supply a steady 5 volt DC power signal, a power regulator usually

Art Unit: 2633

receives input power more than 5 volts and outputs a steady voltage of 5 volts. Official notice is taken that power supplies or power regulators with visible indicia indicating that power is on are also old and well known in the art. Accordingly, at the time the present invention was made, it would have been obvious to one having ordinary skill in the art to use a power regulator as recited in the claim, in the combined teaching of Fukuda and Roberts, in order to be able to use standard digital circuitry, which is built to operate under 5 volt regulated power. Also, one having ordinary skill in the art would have desired visible indicia on the power regulator to allow a system administrator or user to know if there is any damage to the power supply, or if any repairs are needed, as such monitoring has been known and conventionally practiced in the art.

7. Claims 2-5, 8, 10-12, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda and Roberts, as applied to claims 1, 7, and 13, respectively, and further in view of Fluck and Marum.

Regarding claims 2, 8, 15 and 17, the combined teaching of Fukuda and Roberts does not include means for directing a second equalized signal, a level detector, means for directing a second synchronized signal to a data rate and lock encoder, to provide visible indicia showing data rate and signal status. Fluck teaches a video data transmission system having a level detector and means to provide visible indicia showing signal status (col. 2- line 71 to col. 3- line 6).

Regarding data rate, lock encoders/indicators are well known in the art. For instance, in a receiver taught by Roberts, a data rate and lock encoder (338, 438) is connected to a reclocker (see fig. 3 and fig. 4). Marum teaches a data transmission system, with means to determine data rate and to provide visible indicia showing data rate (col. 4- lines 1-7 and lines 17-19). The means to determine data rate are equivalent to the data rate and lock encoder of the present

Art Unit: 2633

invention. At the time the present invention was made, it would have been obvious to one having ordinary skill in the art include in the transmitter of the combined teaching of Fukuda and Roberts (claims 2 and 15) or in the receiver of the combined teaching of Fukuda and Roberts (claims 8 and 17), means to detect signal level, means to detect data rate, and means to provide visible indicia showing data rate and signal status, according to the teaching of Fluck and Marum, the particular grouping of the means of detection, and how they are connected to the visible indicia has no bearing on the functionality of the invention as in the combined teaching, and would have been known to one having ordinary skill in the art. For instance, the same device could be connected to the visible indicia providing both level information, and data rate information to visible indicia (as in the data rate and lock encoder of the present invention). One having ordinary skill in the art would have desired to provide such means in order for a user or system administrator to be presented with means to evaluate how the system is performing, as such monitoring has been known and conventionally practiced in the art.

8. Regarding claims 3-5, 10-12, 16 and 18, Marum uses light emitting diodes to display data rate (col. 4- lines 1-7 and lines 17-19). The combined teaching does not include using LED's to display signal status (read "level"). Official notice is taken that it is well known in the art to use light emitting diodes to display any system performance parameter. The particular type of display (i.e. using LED's or a screen, etc), the number of LED's used (in the case of an LED display) or the particular arrangement of LED on a display is a matter of design choice, and would have been known to one having ordinary skill in the art at the time the present invention was made. In other words, it has no bearing on the functionality of the invention.

Art Unit: 2633

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shaw, Weis and Kenmochi are cited for their teaching on using plural light emitting diodes to display one of a plurality of data rates. Sato and Cannella are cited for disclosing transmitters/receivers having equalizers, and reclockers, handling digital signals. Bigham, Laughlin, Levinson and Wood are cited for disclosing hybrid fiber-coax video transmission.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherif R. Fahmy whose telephone number is 703-305-8088. The examiner can normally be reached on 8:30AM-6:00PM(Mo-Th) 8:30AM-5:00PM(2nd & 4th Fr).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 703-305-4729. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3988 for regular communications and 703-305-3988 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4800.

SRF
March 15, 2003


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600